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Local Moves and 4-Genus of Knots*

by

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Abstract

In this paper, we define some local moves and the distance of knots and prove some relations between the distances and 4-genus of knots. By using the above results, we determine the 4-genera of 5 knots with 10-crossing points which are previously unknown. Therefore we determine the 4-genus of every prime knot with at most 10-crossing points except for 10_{51} .

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